

**European Early Childhood Education Research Association (EECERA) 22nd
Annual Conference**
Pre-Birth to Three: Identities, Learning, Diversities
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**National Early Years Access Initiative: Dublin Docklands Early Numeracy
Project**

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Strand: Innovative Educational Programs: philosophy, practice, research

Aims of the research:

The Docklands Early Numeracy Project is one of 11 innovative demonstration projects, which aim to influence early years mainstream practice, provision and policy in Ireland. Its focus is on improving the numeracy outcomes for children aged 0–6. The models of best practice developed through this project will be used to address the systemic issues in early numeracy in Ireland

Theoretical and conceptual Framework:

Acknowledging the multiple factors that impact on children's learning, the programme adheres to the ecological approach of Vygotsky (1978) and Bronfenbrenner (1979). Research findings internationally highlight the importance of early numeracy as an indicator of future academic success (Northwestern University 2007; National Academy of Science 2009) with parental confidence in supporting their children's numeracy development a significant factor (Eivers et al 2010)

Methodology:

A community action research approach (Senge and Scharmer 2001), which focused on changing practice, understanding of practice and the conditions of practice (Kemmis 2009), was used.

Ethical considerations

The National College of Ireland's Code of Conduct for Researchers was observed. Good practice in relation to action research was followed with ethical considerations addressed throughout the project. Consent was sought from all participants and their rights to confidentiality and anonymity was respected at all times.

Main Findings

Feedback was very positive with participants commenting on the impact of the programme on children's learning, in particular their understanding of mathematical concepts and language. The social, collaborative and dialogic approach (Wong 2009) harnessed the creativity, enthusiasm and commitment of participants and made the sharing of knowledge and practice easier.

Implications for practice and/or policy

The project demonstrates that improving outcomes for children is most successful when cross organisational learning communities are fully involved in the creation of safe, yet challenging, opportunities for purposeful numeracy interactions.

Keywords: Action Research, Mathematics, Multi-professional Collaboration, Learning, Outcomes, Practice based inquiry, Knowledge, Leadership